

view of the universe, which in contrast to the former is called the twofold or *dualistic*, often the *teleological* or *vital*, because it traces the organic natural phenomena to final causes, acting and *working for a definite purpose* (*causæ finales*). It is this deep and intrinsic connection of the different theories of creation with the most important questions of philosophy that incites us to their closer examination.

The fundamental idea, which must necessarily lie at the bottom of all natural theories of development, is that of a *gradual development of all (even the most perfect) organisms* out of a single, or out of a very few, quite simple, and quite imperfect original beings, which came into existence, not by supernatural creation, but by *spontaneous generation*, or *archigony*, out of inorganic matter. In reality, there are two distinct conceptions united in this fundamental idea, but which have, nevertheless, a deep intrinsic connection—namely, first, the idea of spontaneous generation (or *archigony*) of the original primary beings; and secondly, the idea of the progressive development of the various species of organisms from those most simple primary beings. These two important mechanical conceptions are the inseparable fundamental ideas of every theory of development, if scientifically carried out. As it maintains the derivation of the different species of animals and plants from the simplest, common primary species, we may term it also the *Doctrine of Filiation*, or *Theory of Descent*; as there is also a change of species connected with it, it may also be termed the *Transmutation Theory*.

While the supernatural histories of creation must have originated thousands of years ago, in that very remote